

MISSOURI
DEPARTMENT OF
NATURAL RESOURCES

Total Maximum Daily Load Information Sheet

Crane Creek

Water Body ID: 2382

Water Body Segment at a Glance:

County: Stone
Nearby City: Crane
Length: 13.2 miles
Pollutant: Aquatic Macroinvertebrate
Bioassessments
Source: Unknown



Scheduled for TMDL development:

TMDL development schedules are subject to change.

The most current schedule for TMDL development is available on the department's website at dnr.mo.gov/env/wpp/tmdl/wpc-tmdl-progress.htm

Description of the Problem

A water body is considered impaired when it fails to meet applicable water quality standards. Water quality standards consist of designated uses, water quality criteria, an antidegradation policy and implementation procedures. Crane Creek is impaired due to exceedances of water quality criteria for the protection of aquatic life.

Designated uses of Crane Creek*

- Warm Water Habitat (WWH)
- Cold Water Habitat (CDH)
- Whole Body Contact Recreation Category A (WBC-A)
- Secondary Contact Recreation (SCR)
- Human Health Protection (HHP)
- Irrigation (IRR)
- Livestock and Wildlife Protection (LWP)

*In addition to these specific uses, all waters of the state are protected by the general water quality criteria that are specified in the state's Water Quality Standards at 10 CSR 20-7.031(4).

Designated use that are impaired

- Warm Water Habitat (WWH)
- General criteria

Criteria that apply

The state's general water quality criteria at 10 CSR 20-7.031(4) are applicable to all waters of the state at all times. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:

- Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal, or aquatic life [10 CSR 20-7.031(4)(D)].
- Waters shall be free from physical, chemical, or hydrologic changes that would impair the natural biological community [10 CSR 20-7.031(4)(G)].

Assessment and water quality data

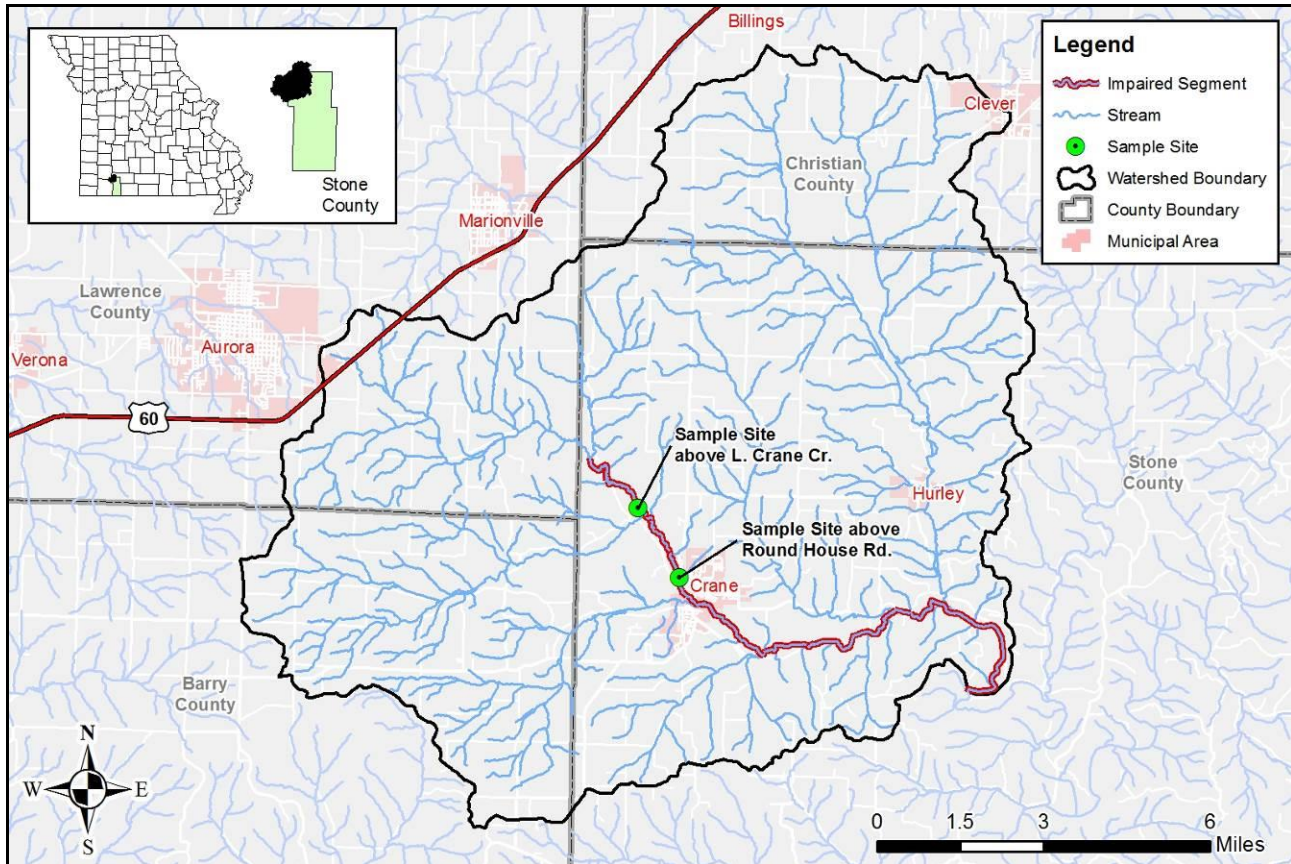
Crane Creek flows through the municipality of Crane in Stone County and is a tributary of the James River. The segment of Crane Creek that is impaired is a 13.2 mile segment that begins near the Lawrence County boundary and flows for about 6 miles to the confluence with the James River. Aquatic invertebrate samples were collected from Crane Creek in 1997. These samples were analyzed and a score was determined to indicate the health of the aquatic community based on the numbers and types of species present. Scores of 16 or greater are considered healthy and reflect an unimpaired condition. Scores less than 16 indicate an impaired condition, which may be caused by toxicity or habitat issues within the waterway. Additional monitoring may be necessary to determine if the cause of the low scores is due to a chemical or physical condition.

Invertebrate communities are judged to be impaired if the percent of sampling sites receiving a score of 16 or more is significantly less than for reference streams within the same ecological drainage unit. If there are seven or fewer samples, as in the case of Crane Creek, the department judges a stream as impaired if at least 75 percent of the samples score less than 16. For Crane Creek, four of the five samples collected scored less than 16. For this reason, the stream is judged to be impaired.

Invertebrate Community Data

Sampling Organization	Sampling Site Code	Sample Site Location	Date	Score
MoDNR	2382/10.5	Crane Cr. above Little Crane Cr.	March 21, 1997	14
MoDNR	2382/10.5	Crane Cr. above Little Crane Cr.	Sept. 17, 1997	20
MoDNR	2382/8.8	Crane Cr. above Round House Rd.	March 21, 1997	14
MoDNR	2382/8.8	Crane Cr. above Round House Rd.	Sept. 17, 1997	14

Map Showing the Crane Creek Watershed



TMDL for Crane Creek

The Crane Creek TMDL will calculate the maximum amount of each listed pollutant that the stream can receive and still meet water quality standards. The TMDL will also identify all potential or suspected pollutant sources in the watershed and distribute the allowable pollutant loads among those various sources. When developed, the Crane Creek TMDL will use the most current and available data. For this reason, the final TMDL may present information that differs from that contained in this information sheet.

For more information call or write:

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